FIG. 1A

CONFIGURATION EXAMPLE 1

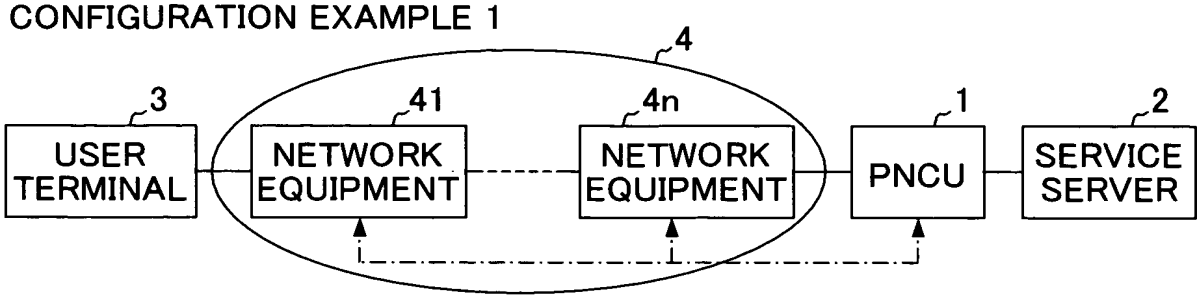


FIG. 1B

CONFIGURATION EXAMPLE 2

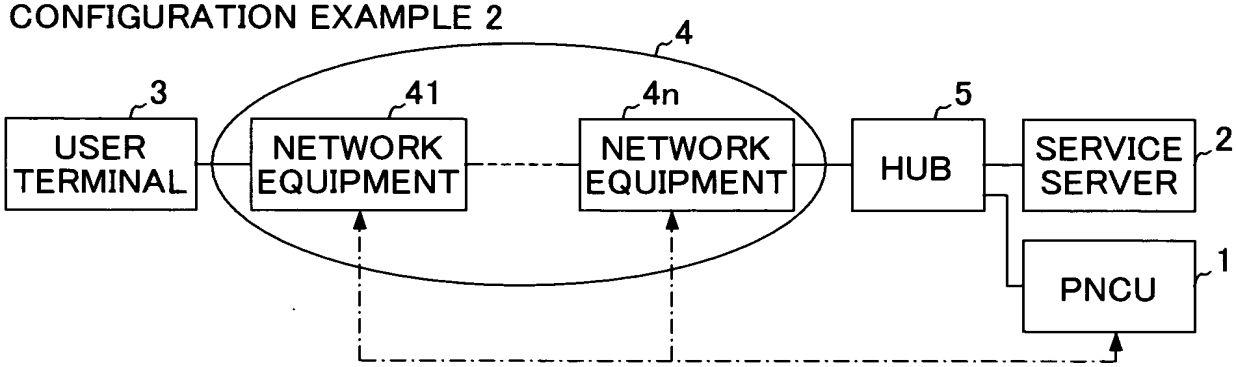


FIG. 1C

CONFIGURATION EXAMPLE 3

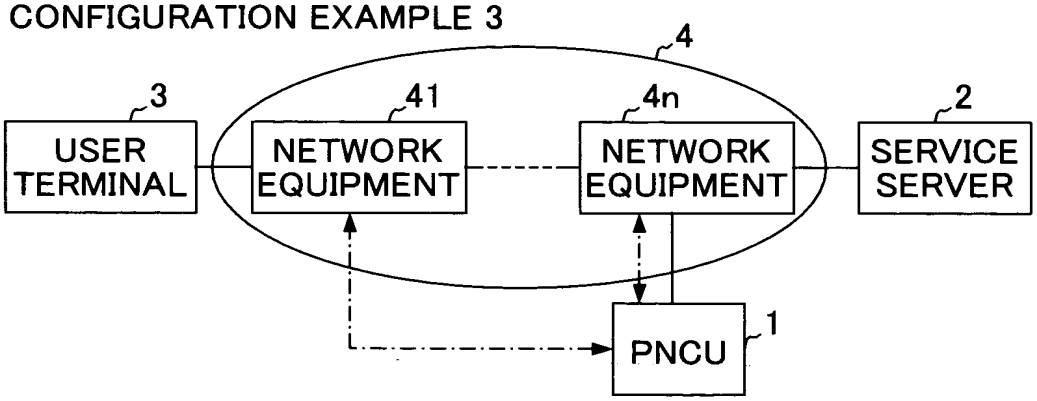


FIG. 1D

CONFIGURATION EXAMPLE 4

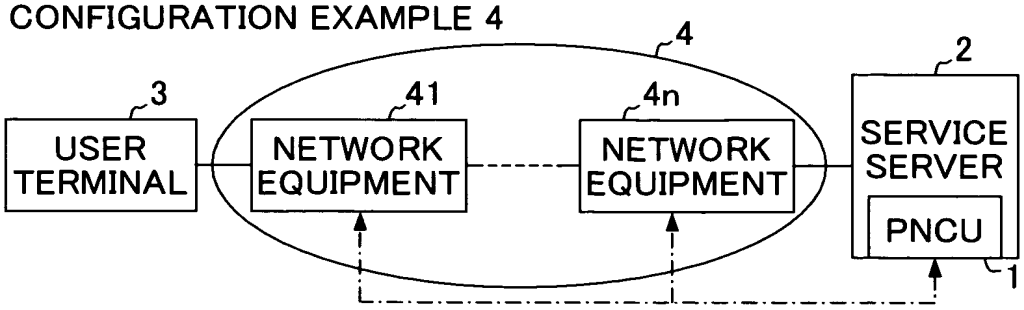


FIG. 2

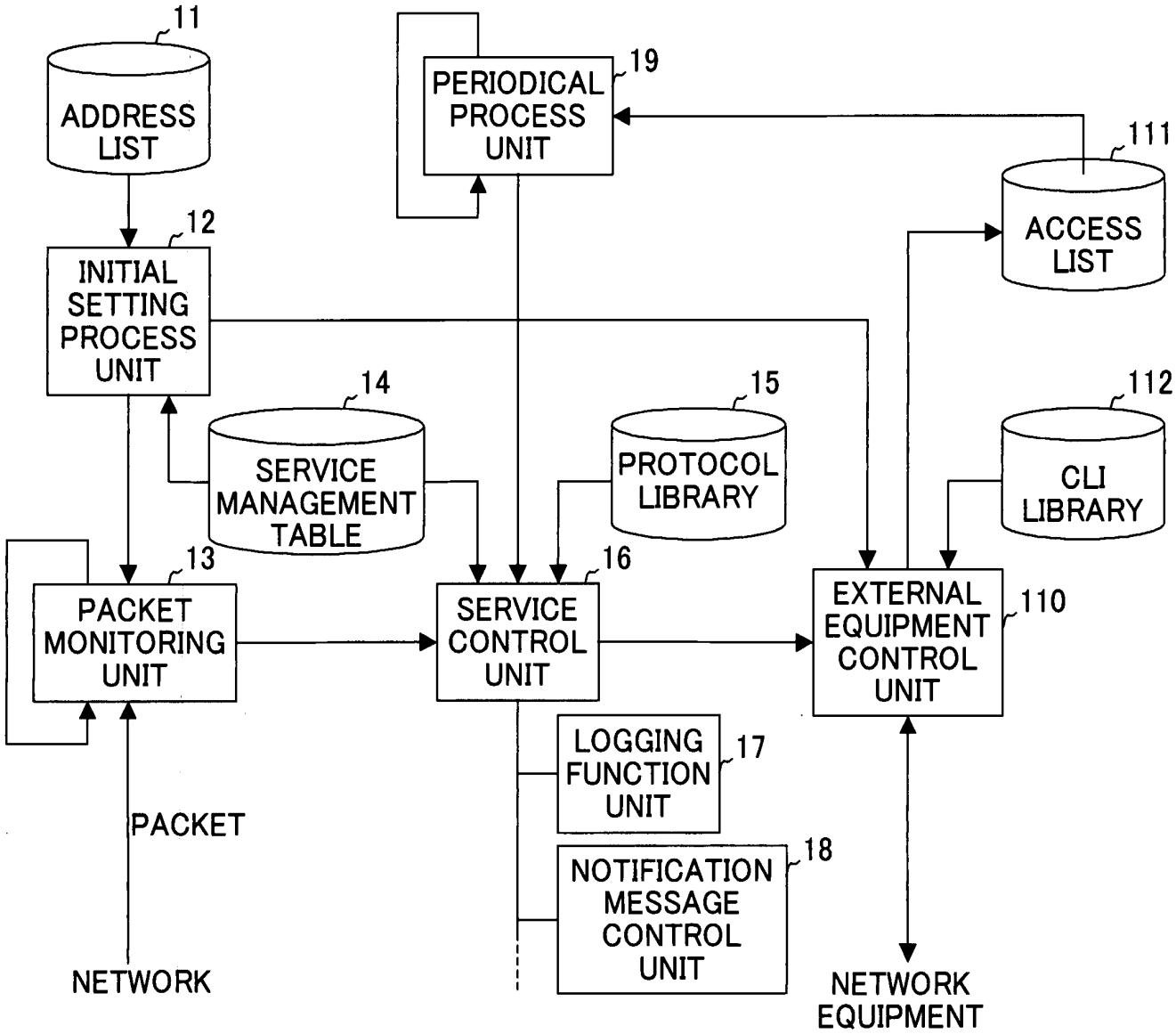

11
ADDRESS LIST
12
INITIAL SETTING PROCESS UNIT
19
PERIODICAL PROCESS UNIT
111
ACCESS LIST
14
SERVICE MANAGEMENT TABLE
15
PROTOCOL LIBRARY
112
CLI LIBRARY
13
PACKET MONITORING UNIT
16
SERVICE CONTROL UNIT
EXTERNAL EQUIPMENT CONTROL UNIT
110
LOGGING FUNCTION UNIT
17
NOTIFICATION MESSAGE CONTROL UNIT
18
PACKET
NETWORK
NETWORK EQUIPMENT

FIG. 3

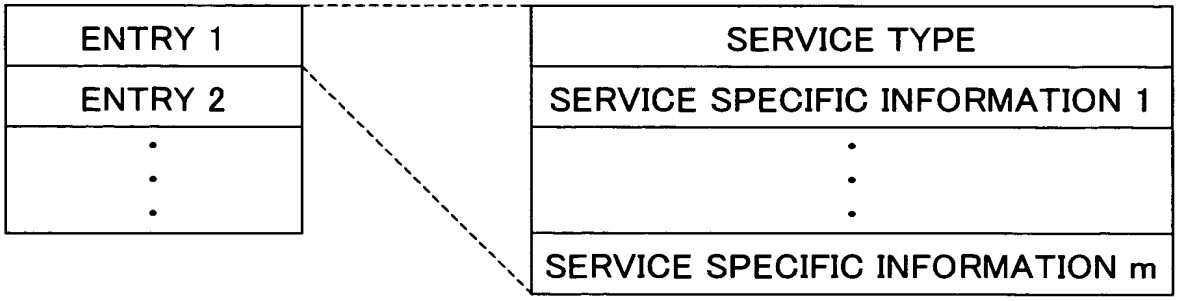


FIG. 4

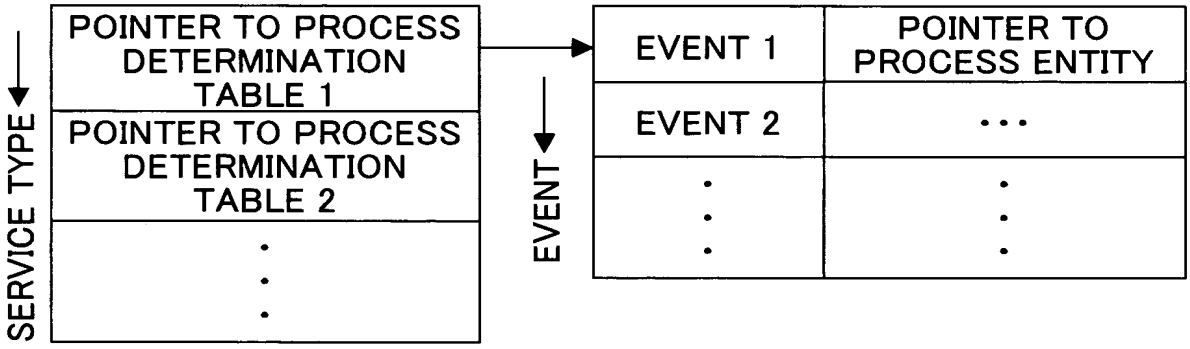


FIG. 5

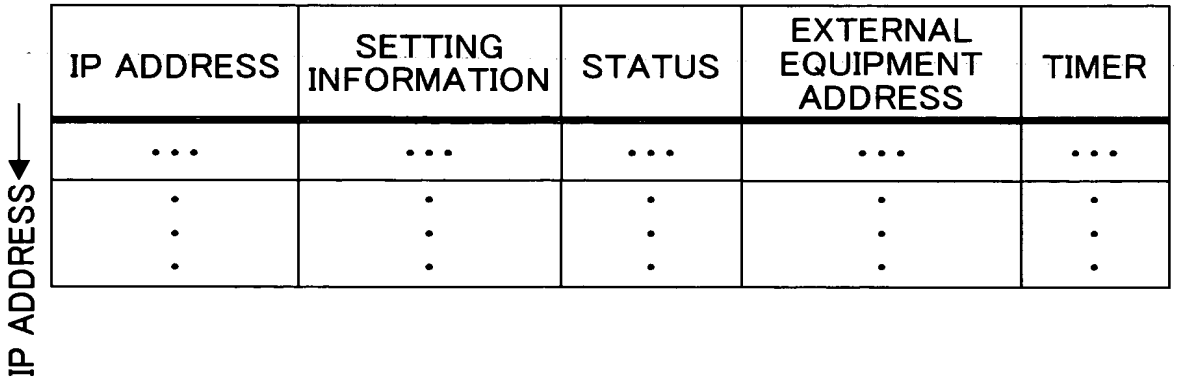


FIG. 6

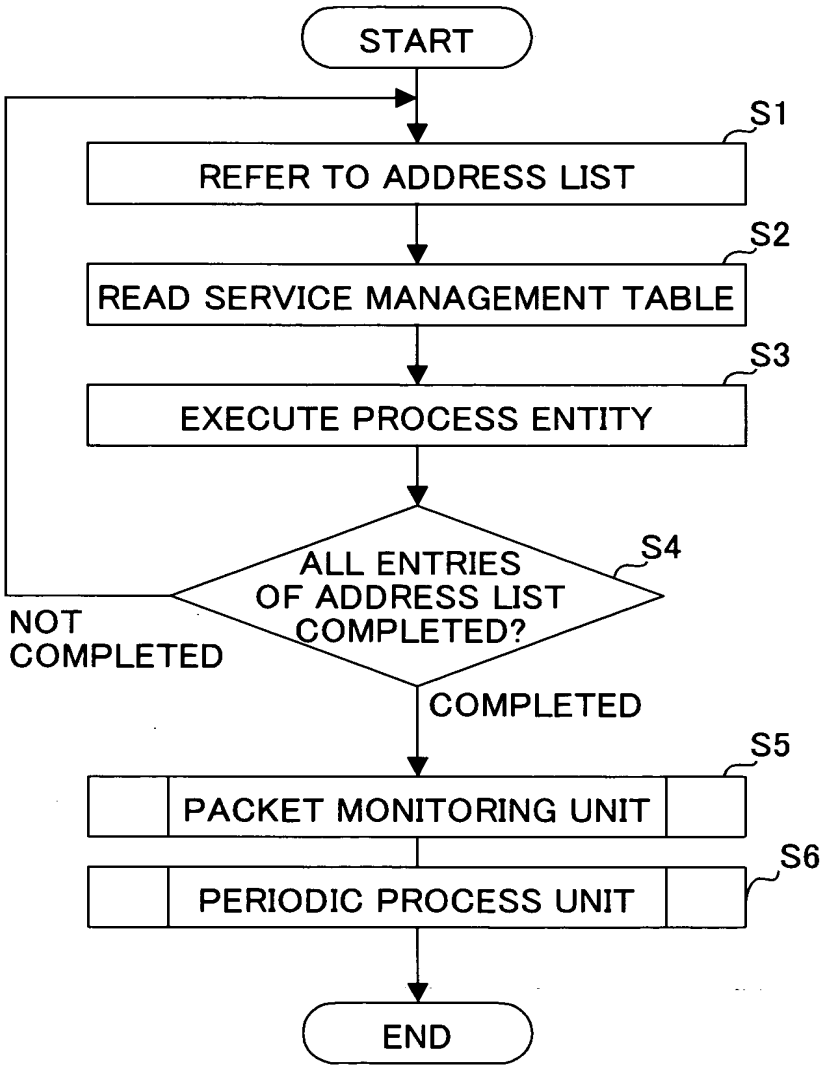

START
S1
REFER TO ADDRESS LIST
S2
READ SERVICE MANAGEMENT TABLE
S3
EXECUTE PROCESS ENTITY
S4
ALL ENTRIES OF ADDRESS LIST COMPLETED?
NOT COMPLETED
COMPLETED
S5
PACKET MONITORING UNIT
S6
PERIODIC PROCESS UNIT
END

FIG. 7

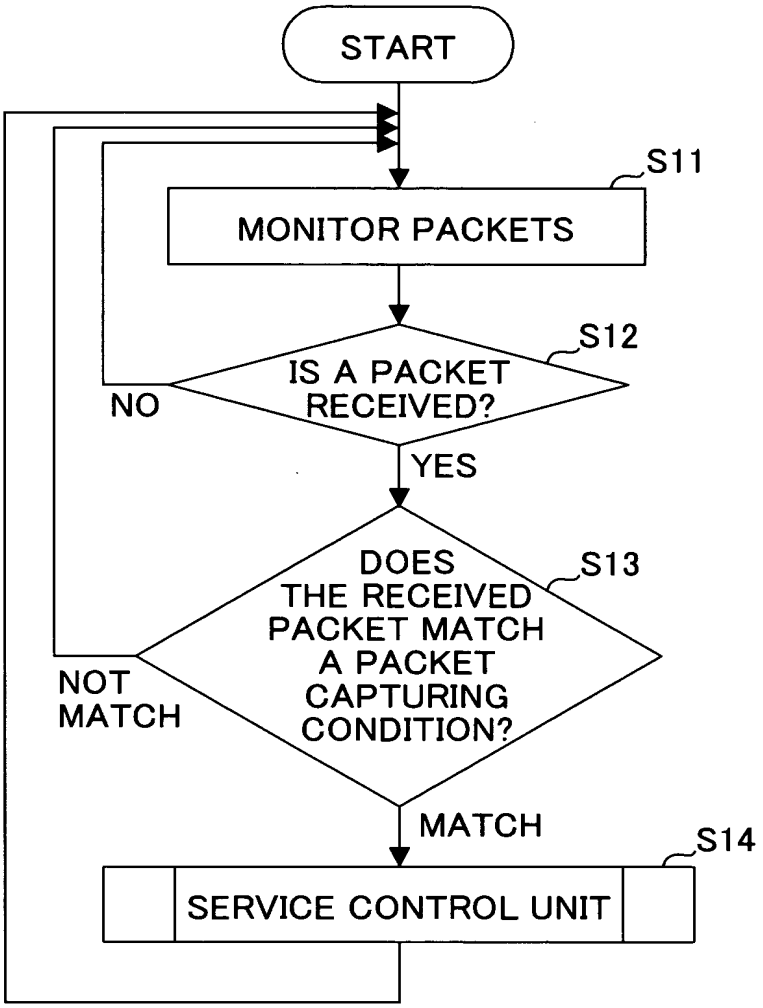

START
S11
MONITOR PACKETS
S12
IS A PACKET RECEIVED?
NO
YES
S13
DOES THE RECEIVED PACKET MATCH A PACKET CAPTURING CONDITION?
NOT MATCH
MATCH
S14
SERVICE CONTROL UNIT

FIG. 8

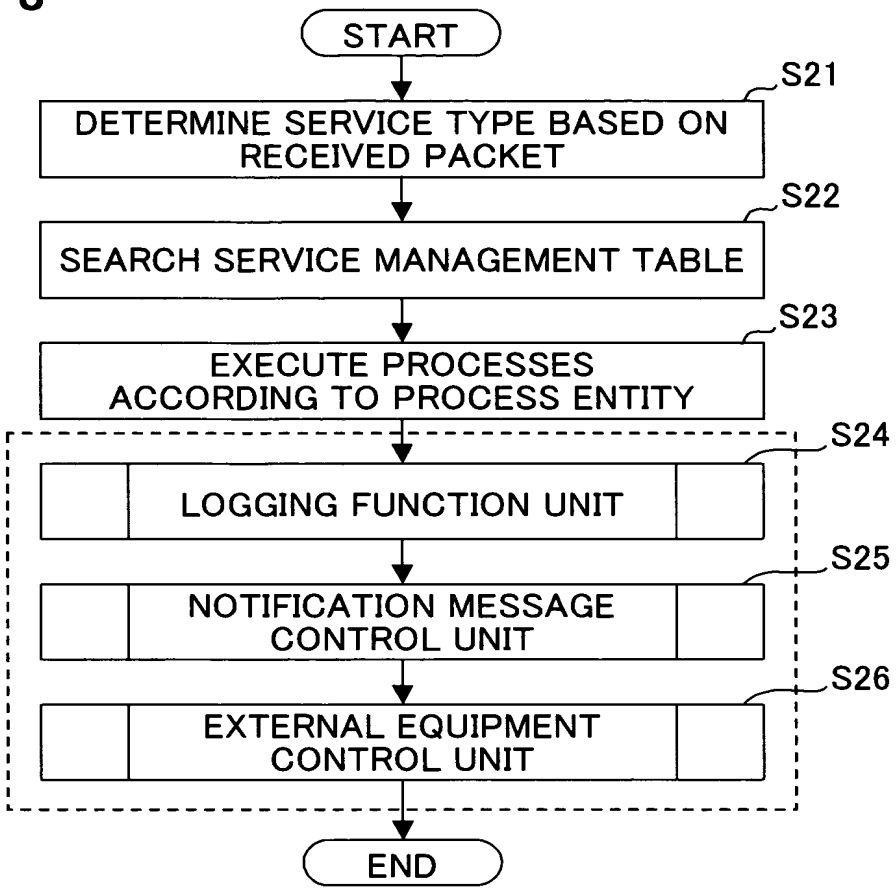

START
S21
DETERMINE SERVICE TYPE BASED ON RECEIVED PACKET
S22
SEARCH SERVICE MANAGEMENT TABLE
S23
EXECUTE PROCESSES ACCORDING TO PROCESS ENTITY
S24
LOGGING FUNCTION UNIT
S25
NOTIFICATION MESSAGE CONTROL UNIT
S26
EXTERNAL EQUIPMENT CONTROL UNIT
END

FIG. 9

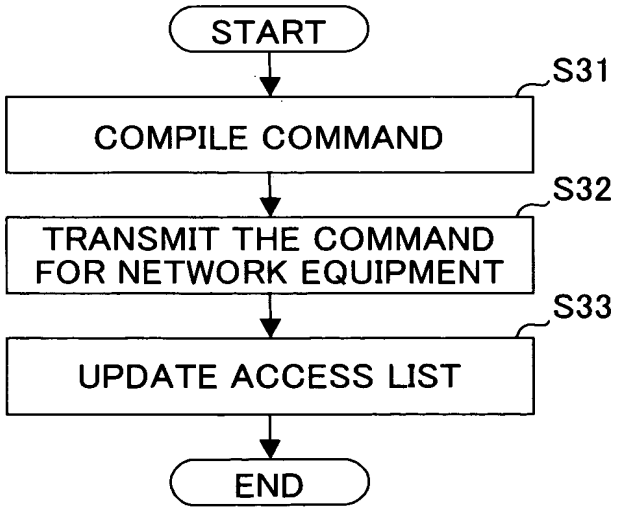

START
S31
COMPILE COMMAND
S32
TRANSMIT THE COMMAND FOR NETWORK EQUIPMENT
S33
UPDATE ACCESS LIST
END

FIG. 10

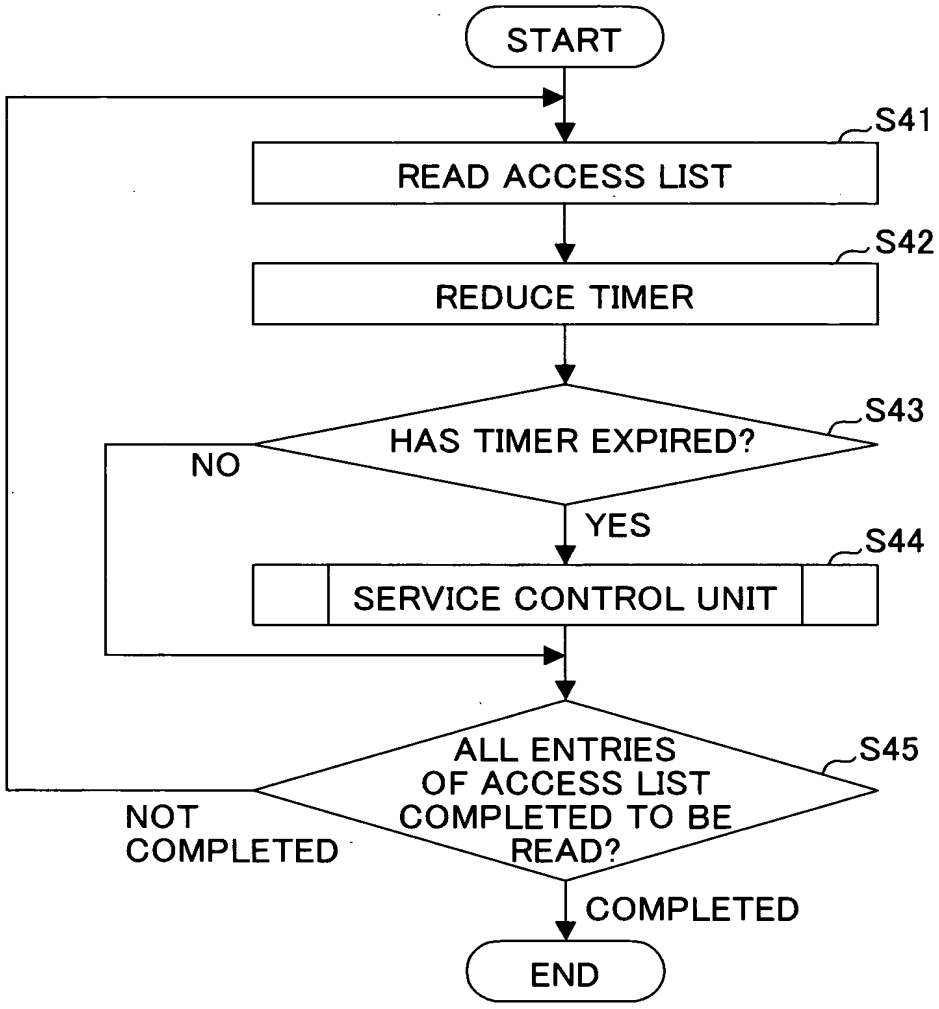

START
S41
READ ACCESS LIST
S42
REDUCE TIMER
S43
HAS TIMER EXPIRED?
NO
YES
S44
SERVICE CONTROL UNIT
S45
ALL ENTRIES OF ACCESS LIST COMPLETED TO BE READ?
NOT COMPLETED
COMPLETED
END

FIG. 11A

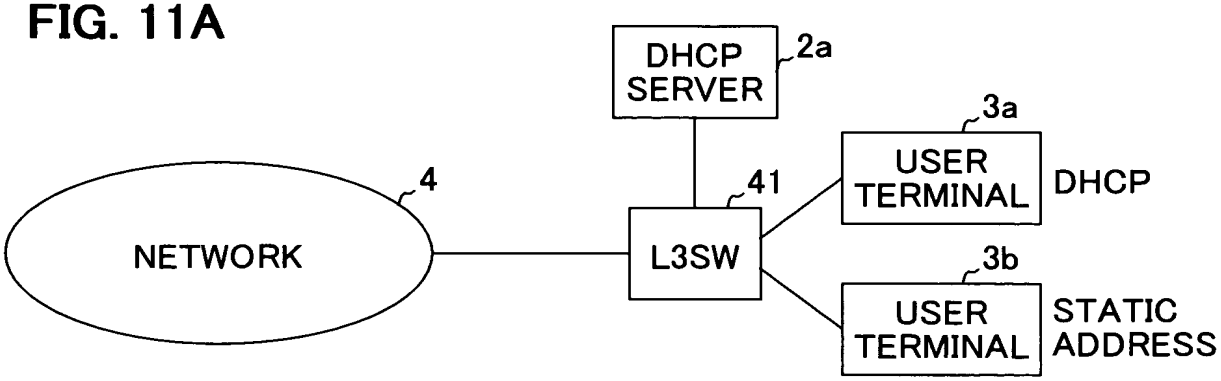


FIG. 11B

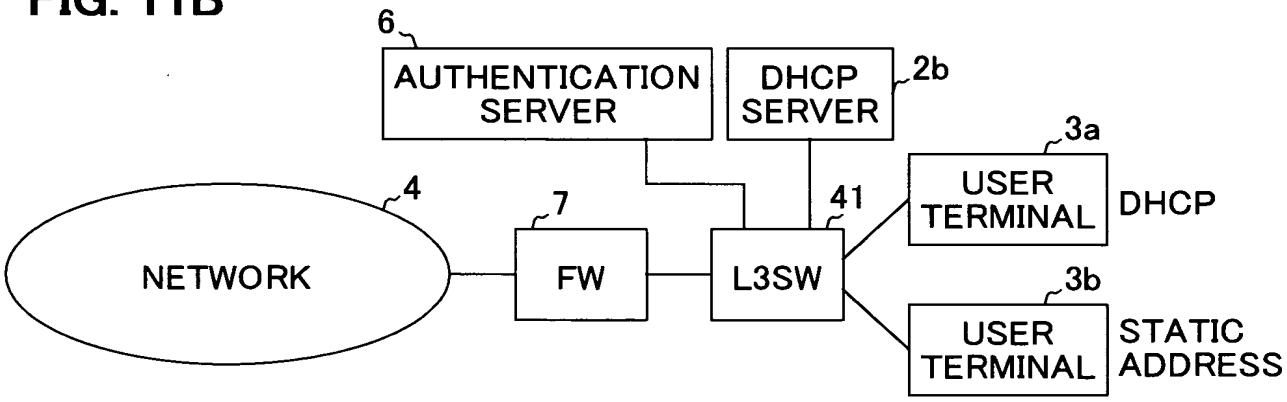


FIG. 11C

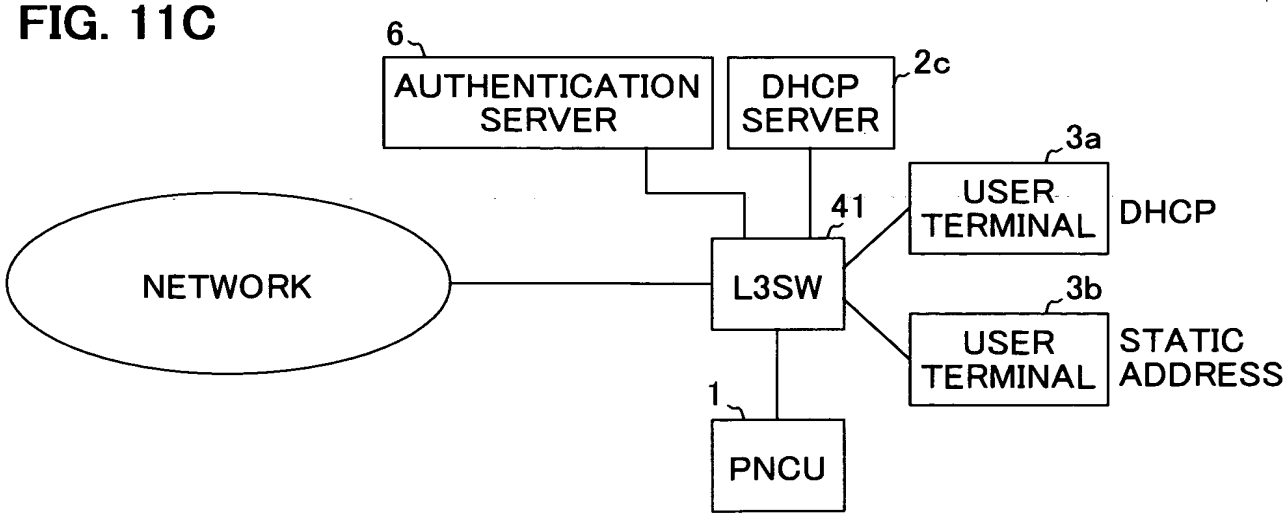


FIG. 12A

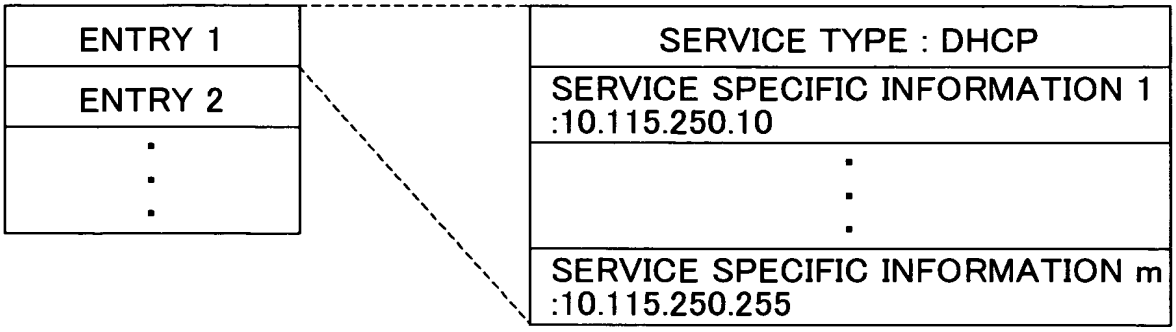


FIG. 12B

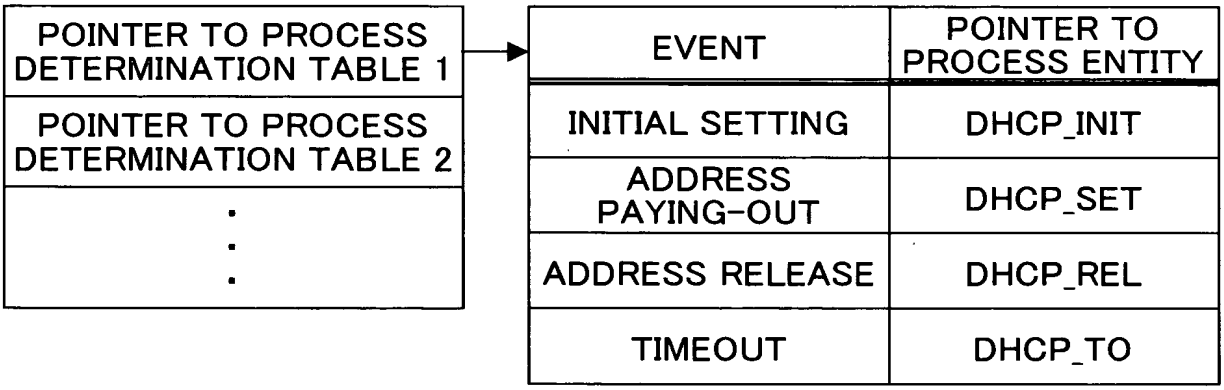


FIG. 12C

IP ADDRESS	SETTING INFORMATION	STATUS	EXTERNAL EQUIPMENT ADDRESS	TIMER
10.115.250.10	・・・	REGULATION PRESENT	10.115.250.1	8H
10.115.250.11	・・・	NO REGULATION	10.115.250.1	・・・
・	・	・	・	・

FIG. 13

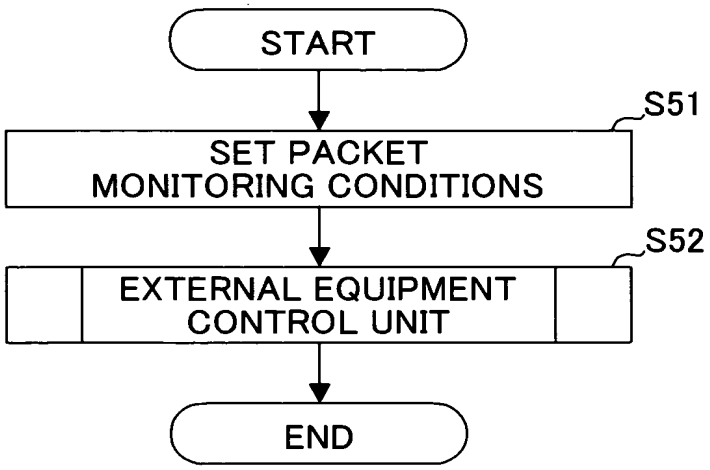


FIG. 14

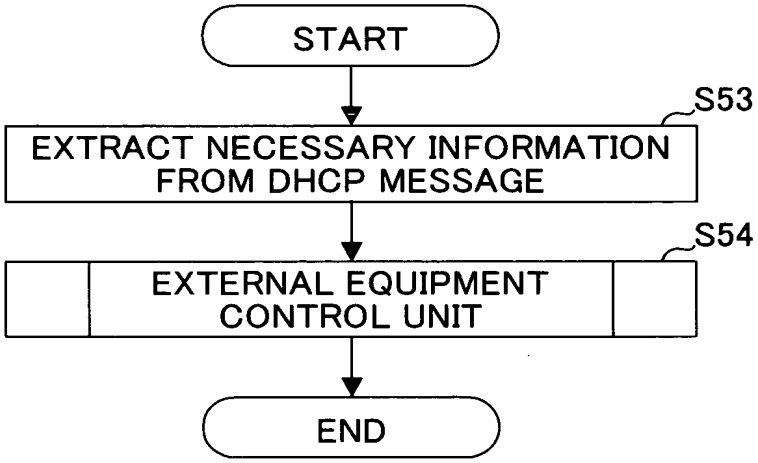


FIG. 15

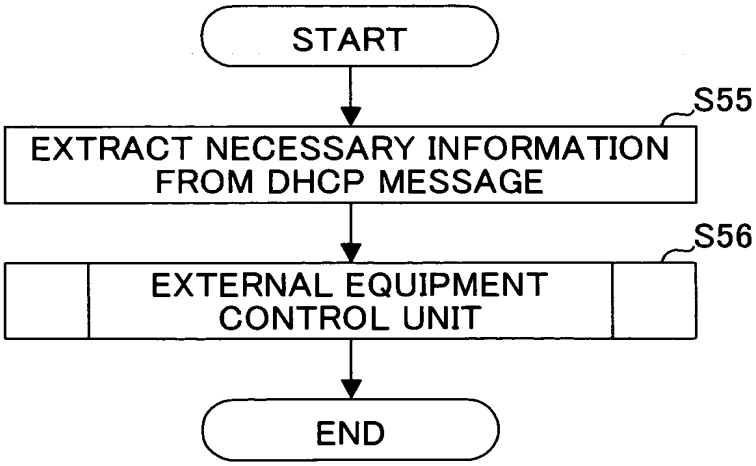


FIG. 16

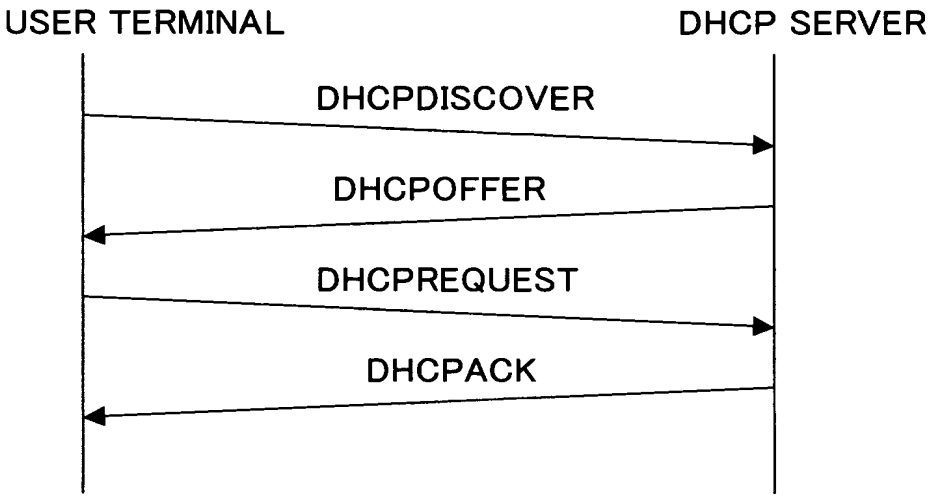

USER TERMINAL
DHCP SERVER
DHCPDISCOVER
DHCPOFFER
DHCPREQUEST
DHCPACK

FIG. 17

USER TERMINAL
DHCP SERVER
DHCPRELEASE

FIG. 18A

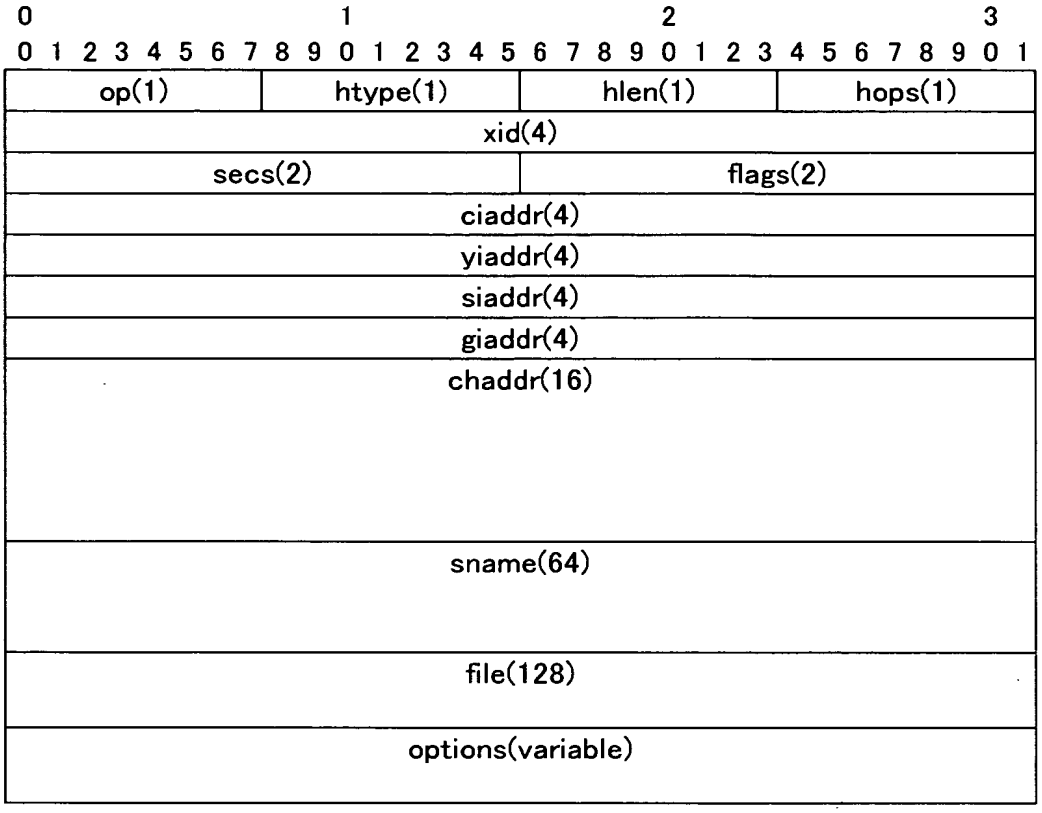


FIG. 18B

Code	Len	Lease Time			
51	4	t1	t2	t3	t4

FIG. 18C

Code	Len	Type
53	1	1－9

FIG. 19A

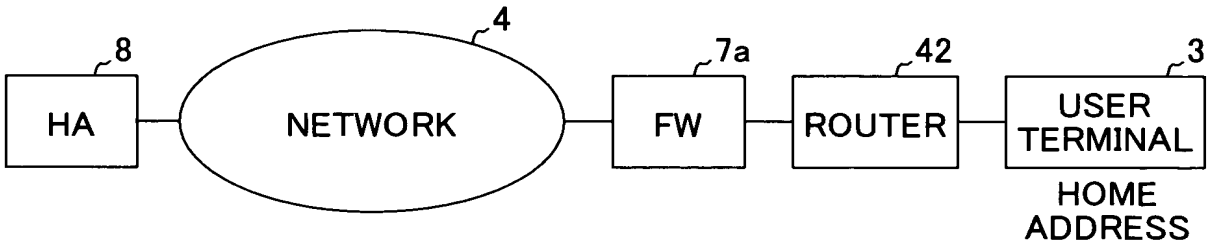


FIG. 19B

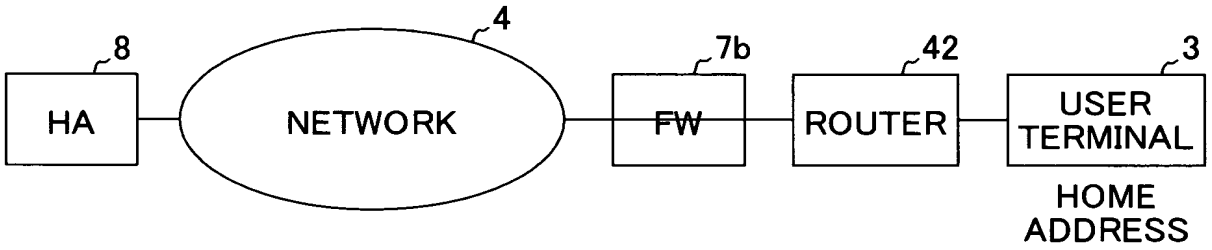


FIG. 19C

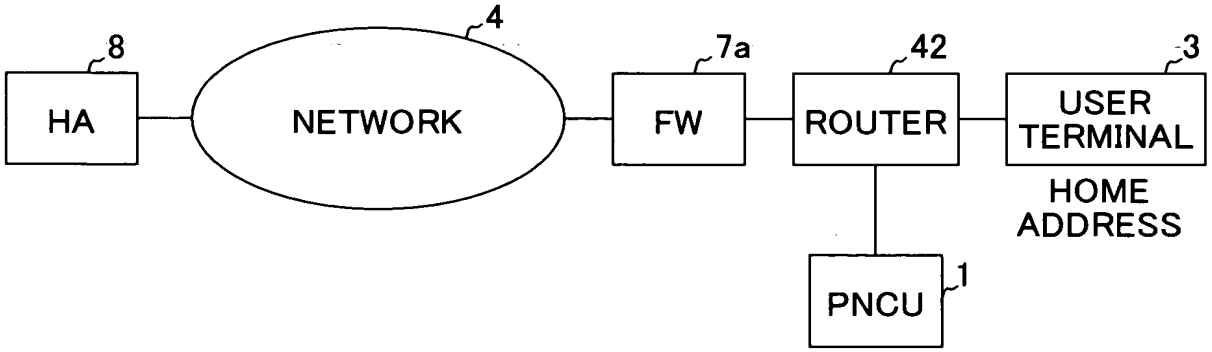


FIG. 20A

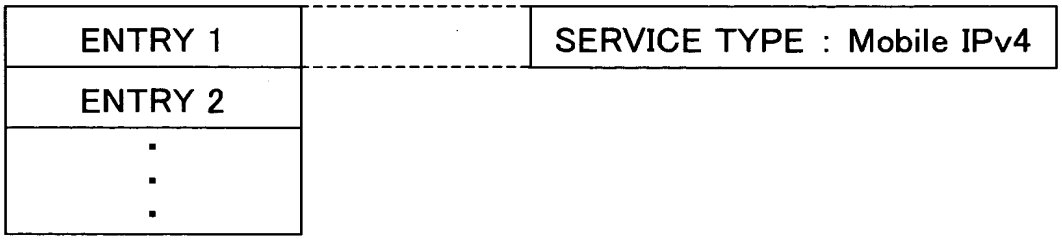


FIG. 20B

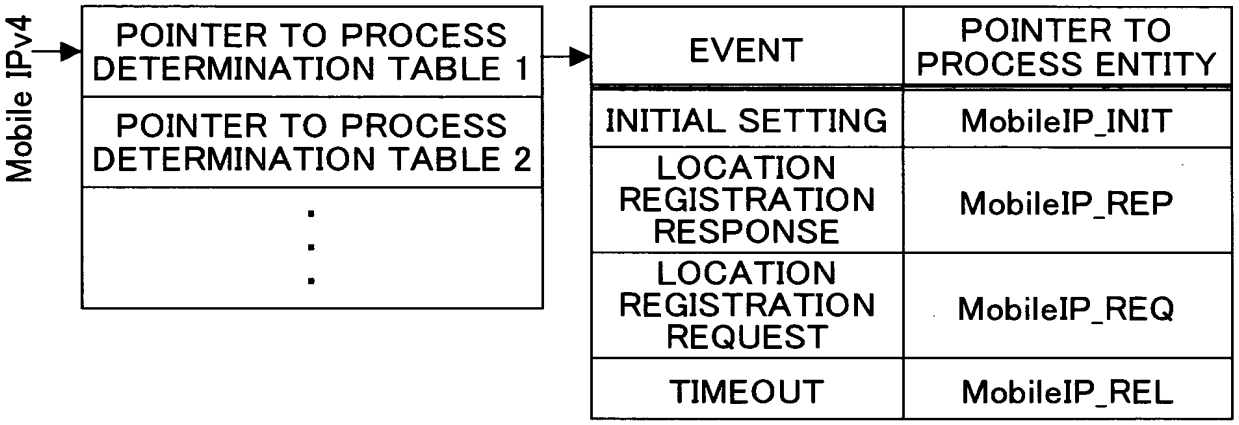


FIG. 20C

IP ADDRESS	SETTING INFORMATION	STATUS	EXTERNAL EQUIPMENT ADDRESS	TIMER
10.115.10.10	...	NO REGULATION	10.115.250.1	8H
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.

FIG. 21

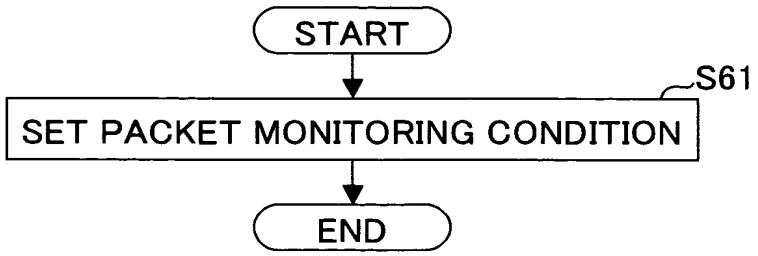


FIG. 22

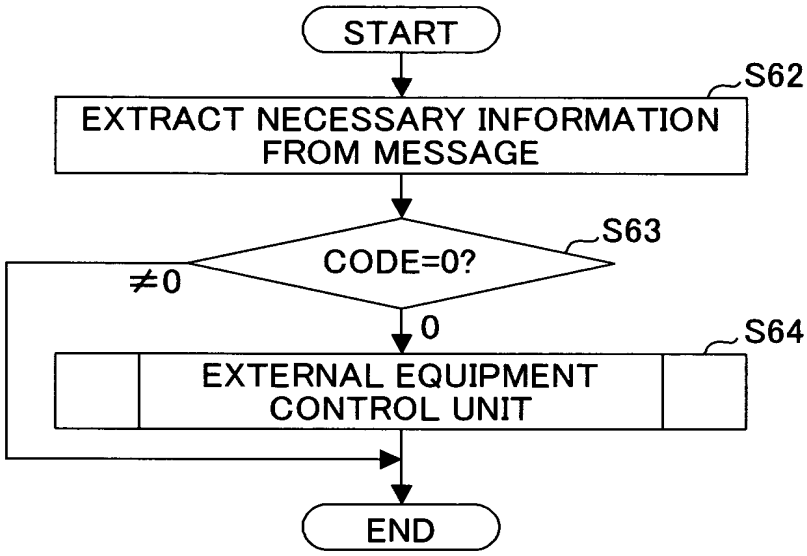


FIG. 23

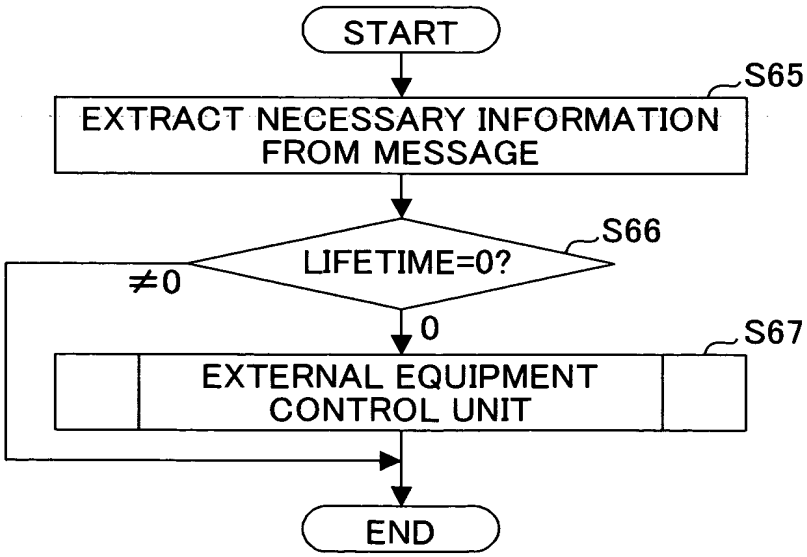


FIG. 24

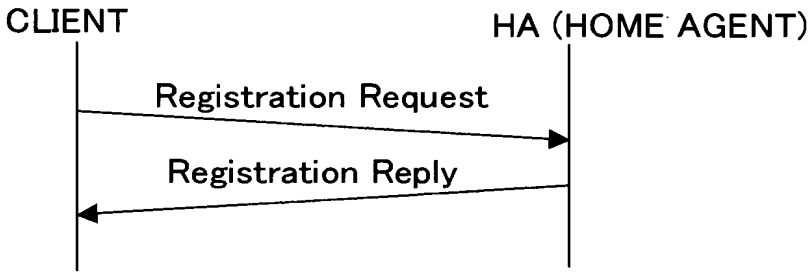


FIG. 25A

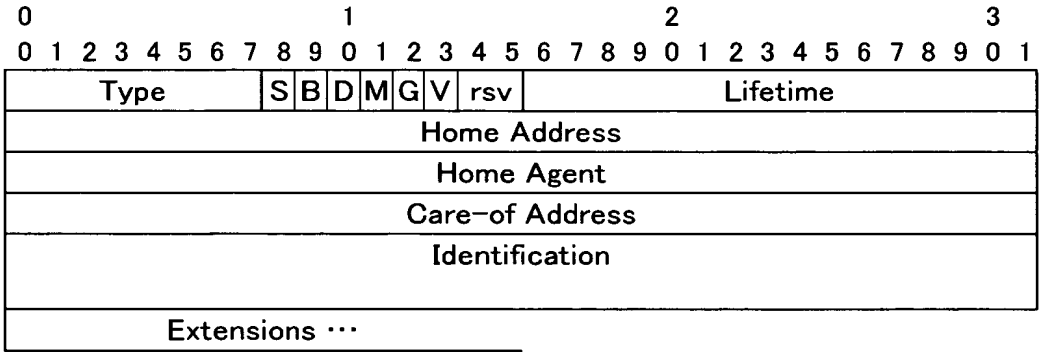


FIG. 25B

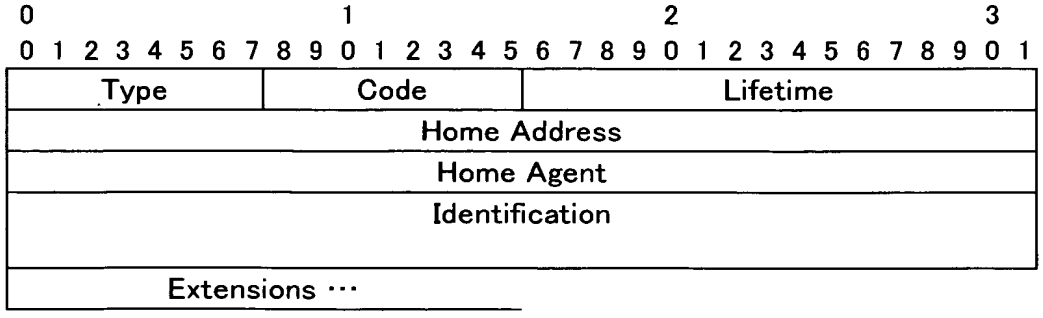


FIG. 26A

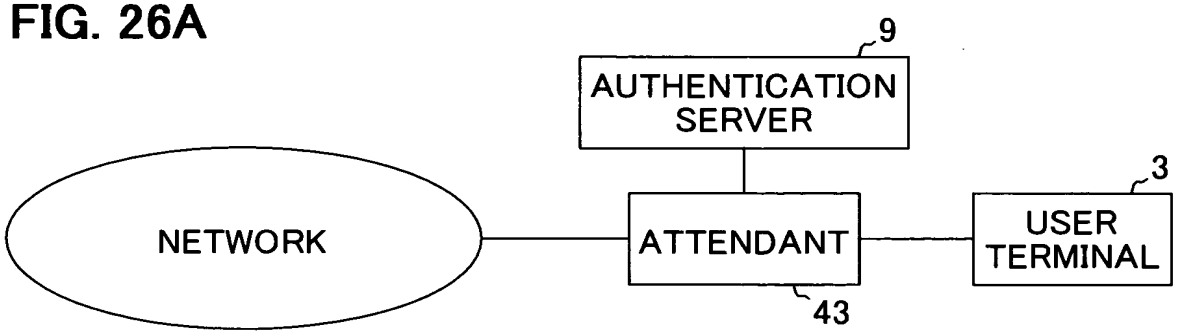


FIG. 26B

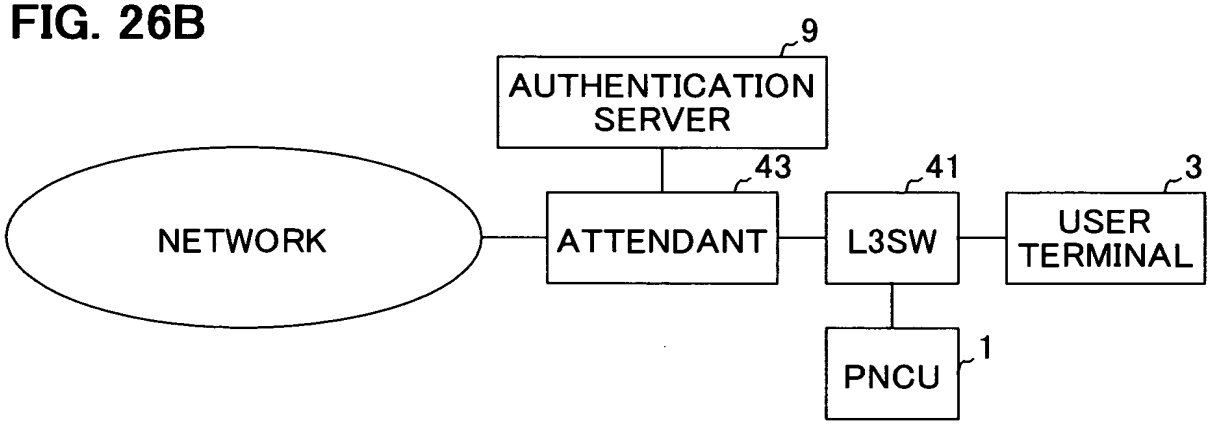


FIG. 26C

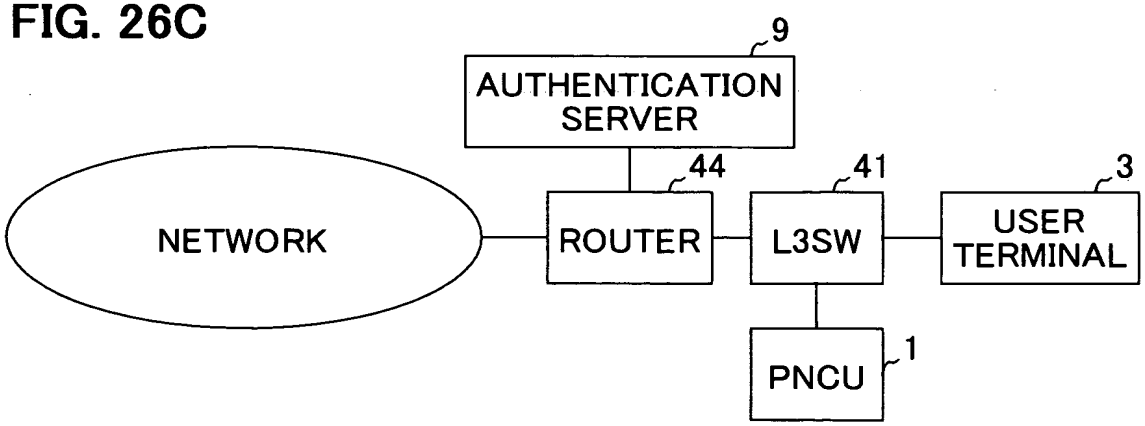


FIG. 27A

ENTRY 1		SERVICE TYPE : IPv6
ENTRY 2		
⋮		

FIG. 27B

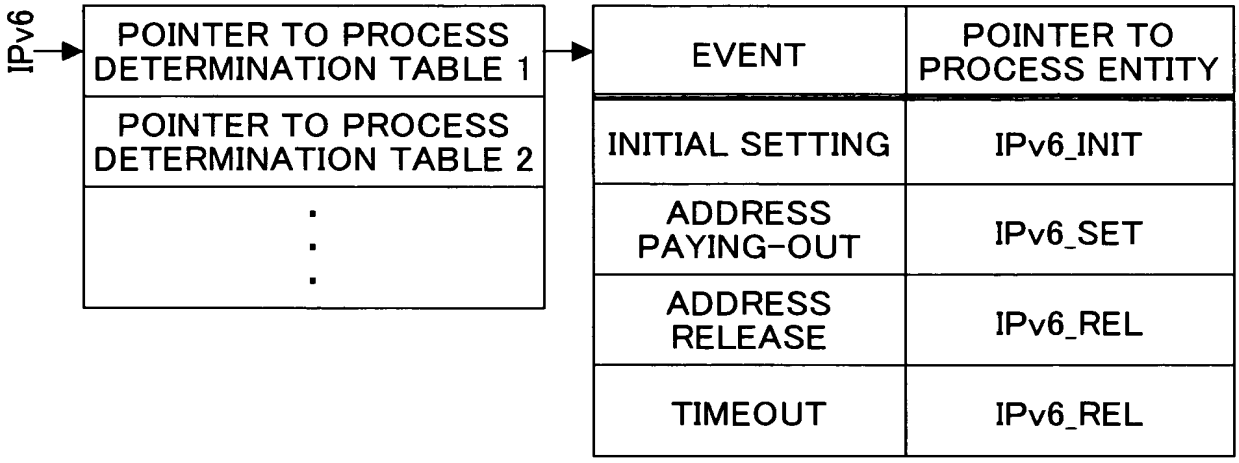


FIG. 27C

IP ADDRESS	SETTING INFORMATION	STATUS	EXTERNAL EQUIPMENT ADDRESS	TIMER
2000:10::250:56ff:fe15:100	···	NO REGULATION	2000:10::250:56ff:fe15:10	8H
2000:10::250:56ff:fe15:101	···	REGULATION PRESENT	2000:10::250:56ff:fe15:10	···
⋮	⋮	⋮	⋮	⋮

FIG. 28

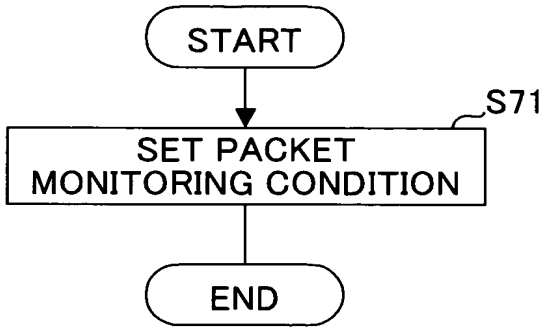

START
S71
SET PACKET MONITORING CONDITION
END

FIG. 29

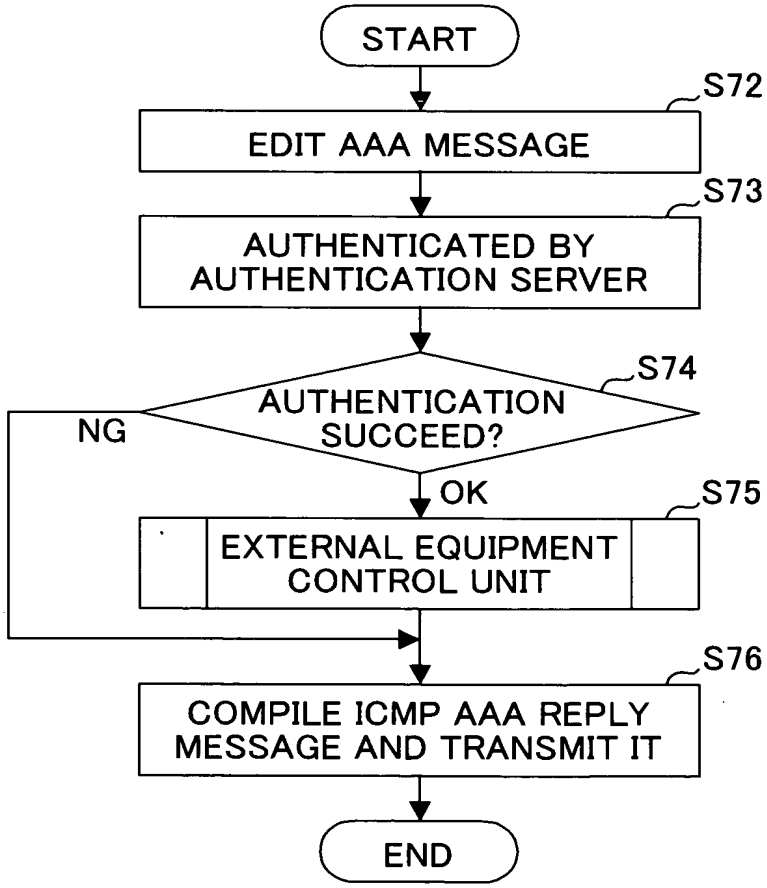

START
S72
EDIT AAA MESSAGE
S73
AUTHENTICATED BY AUTHENTICATION SERVER
S74
AUTHENTICATION SUCCEED?
NG
OK
S75
EXTERNAL EQUIPMENT CONTROL UNIT
S76
COMPILE ICMP AAA REPLY MESSAGE AND TRANSMIT IT
END

FIG. 30

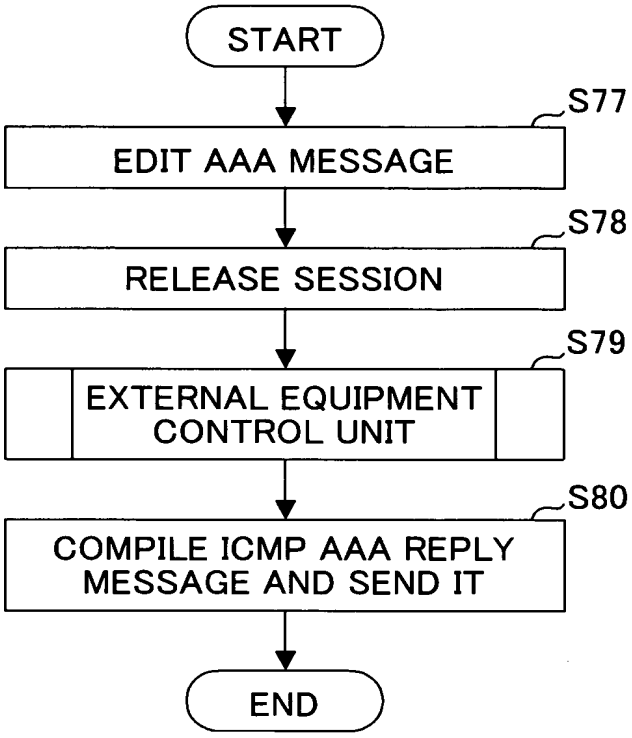
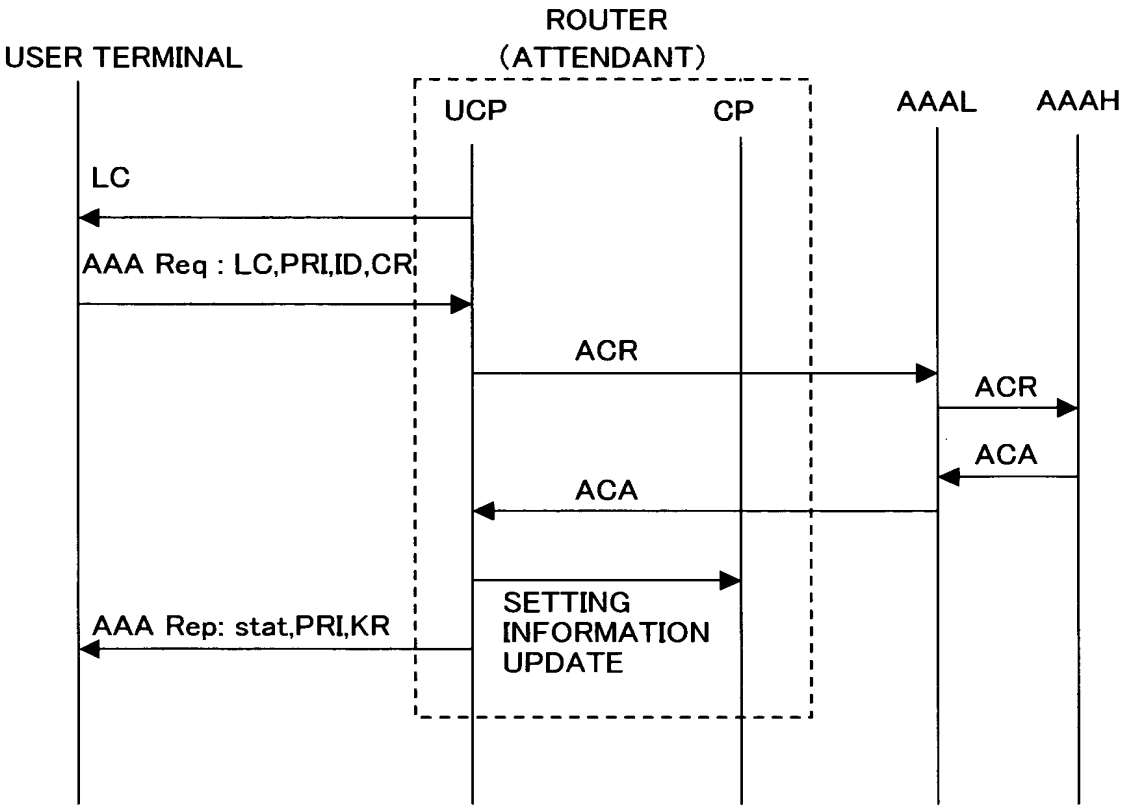

START
S77
EDIT AAA MESSAGE
S78
RELEASE SESSION
S79
EXTERNAL EQUIPMENT CONTROL UNIT
S80
COMPILE ICMP AAA REPLY MESSAGE AND SEND IT
END

FIG. 31



LC = LOCAL AAA CHALLENGE

RPI = RESENDING PROTECT INDEX

CR = AAA CERTIFICATE

ID = CLIENT IDENTFIER

KR = KEY RESPONSE

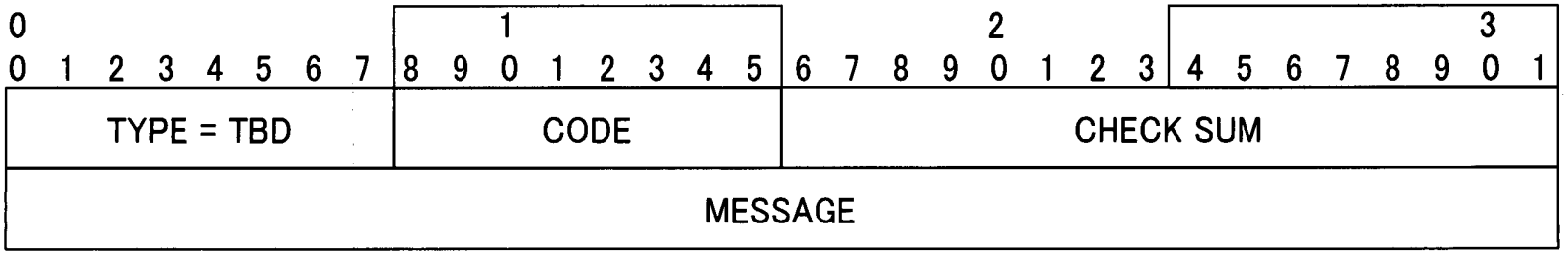
UCP = UNCONTROLL PART

CP = CONTROL PART

ACR = AAA CLIENT REQUEST

ACA = AAA CLIENT REPLY

FIG. 32


0
1
2
3
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
TYPE = TBD
CODE
CHECK SUM
MESSAGE

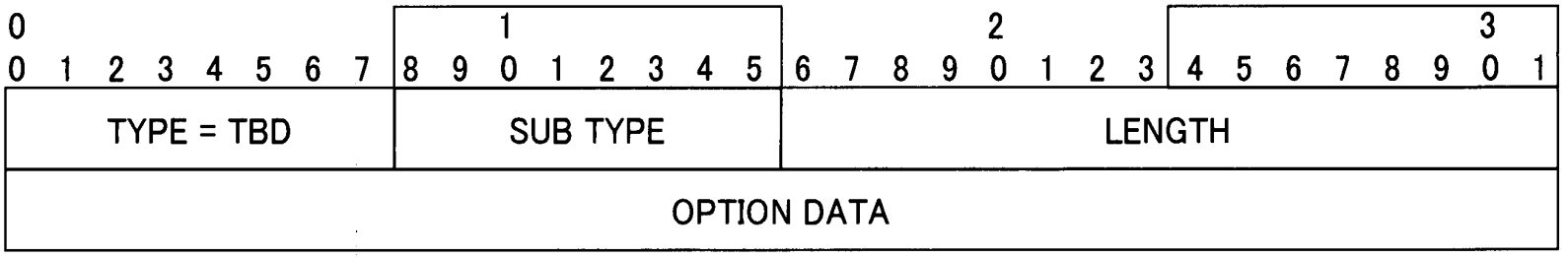
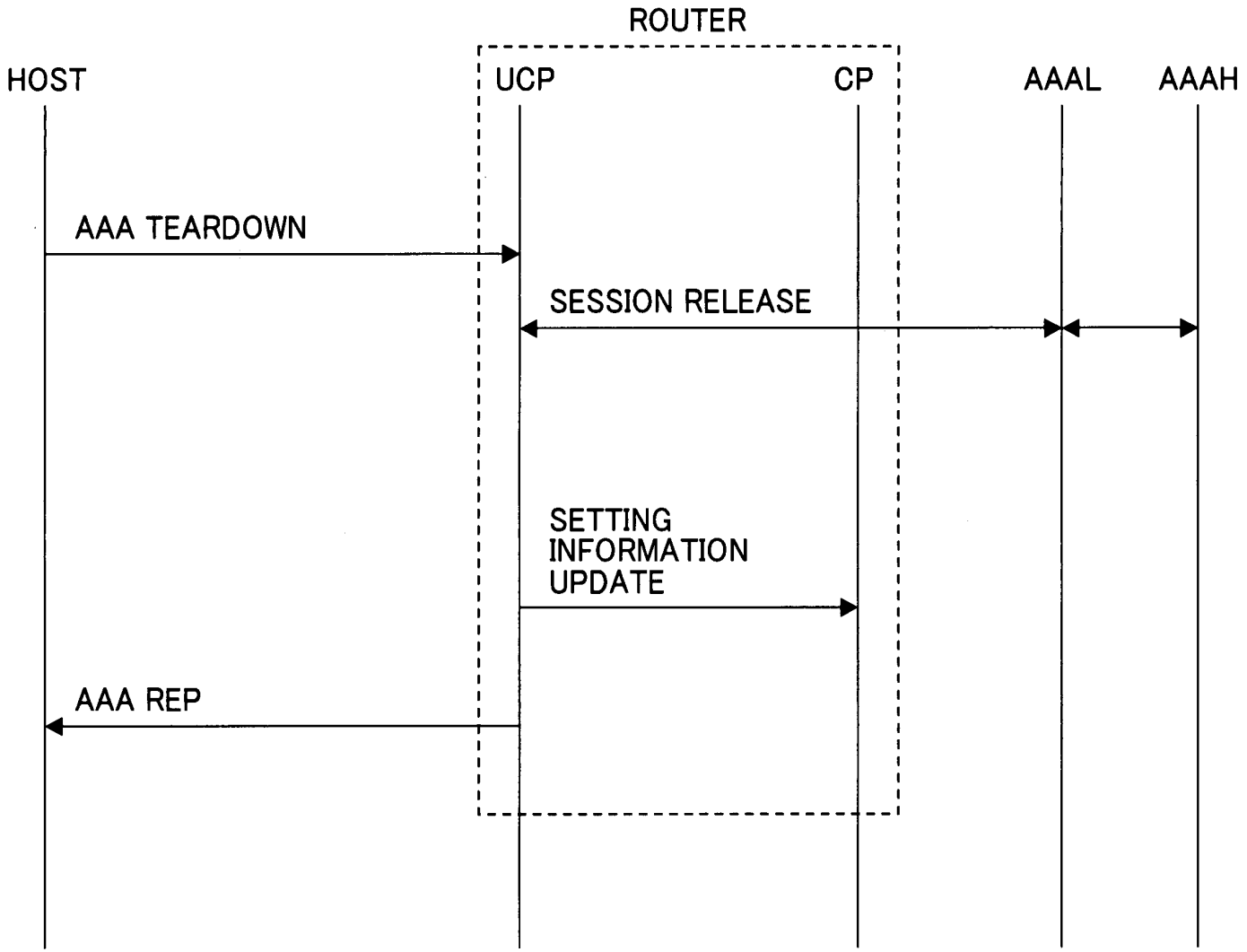

0
1
2
3
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
TYPE = TBD
SUB TYPE
LENGTH
OPTION DATA

FIG. 33


ROUTER
HOST
UCP
CP
AAAL
AAAH
AAA TEARDOWN
SESSION RELEASE
SETTING
INFORMATION
UPDATE
AAA REP